

THE

THE MINER

VA

By Dr

V
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M. K.

THE MODE
OF EMPLOYING
THE MINERAL WATERS
OF
VALS
(ARDÈCHE)

By Dr. TOURRETTE.



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The Waters of Vals can be obtained of :

Messrs. E. GALLAIS & Co., 27, Margaret street,
Regent street.

— W. BEST & Sons, 22, Henrietta street,
Cavendish square.

— COVERDALE & Co., 44, London street,
City.

And of all respectable Chemists in the Kingdom.

THERAPEUTICK.

THERAPEUTICAL PROPERTIES

OF THE

VALS MINERAL WATERS

HAUTE SAOÛNE

Since some years a gréat change has taken place in the minds of doctors as to the use of mineral waters. Indeed hydrologic questions are now in high repute. The hydro-mineral treatment has obtained public favour ; doctors and patients apply to that therapeutic agent for a relief which, it is acknowledged is never defective where proper instructions are given. There is not perhaps a better known fact in medicine.

The most richly mineralised springs and at the same time the most varied that we have in France, and even in Europe, are undoubtedly those of Vals. This place is unrivalled, and it will be easy to prove it in few words ; we may add that the use of these waters, so frequently recommended by physicians, renders the following indications most desirable.

Practitioners well know, that used moderately, those waters have a mild yet strengthening action on the stomach, on the gastric, biliary pancreatic secretions and chiefly on perspiration and urine. They also know that they help certain periodical indispositions and soothe the pains which very of-

ten precede or accompany them; that under their salutary influence, the appetite lost is recovered, digestion becomes easier and more regular; in a word an unusual comfort is felt throughout the whole system. The complexion resumes its hue, the flesh gets firm, muscular strength is restored.

The *aperitive, resolutive, dissolving* and *tonic* properties we mention now, were also mentioned three centuries ago. This is what Claude Expilly, a celebrated president of the parliament at Grenoble, wrote in 1609.

The waters of Vals, says he, do wonders, strengthen the stomach, clear away crudities and the bile, relieve the liver and the spleen, dissipate the winds and the melancholy of hypocondriacs, destroy obstructions and opilations, cure the green sickness jaundice, purify the blood, strengthen the loins cure the dropsy and cholic, evacuate the stone if not too far advanced, comminute and discharge the calculus and gravel from the loins or the bladder; clear the sight by washing the eyes; excite the appetite; strengthen the body and make it healthy, hearty and as it were new and young again. They have no quality injurious to the body, provided they be used with caution and without excess.

We have had so many wonderful proofs of their efficiency that we may well extol them and prefer them to the most celebrated and the most highly recommended in Europe. »

Claude Expilly underwent the operation of the cutting of the stone at the age of 47, and lived 28 years after taking the waters of Vals. « In the year of our Lord 1609 et 1610, » says he, I went to drink the waters of Vals during the months of August and September. There I recovered my health of former days so completely that I never after felt any effects of the stone or the gravel, under which I laboured so much before that I had almost given up all hopes of spending one day without pain or inconvenience, though some time before in 1608 I had been relieved. »

During his stay at the springs of Vals, Claude Expilly wrote some pieces of verse « *to beguile sad time away*. »

The english reader may be glad to have a specimen of his verse at a time when french poetry was but beginning the ascent of Helicon so dear to the poets of Greece.

Maint gravier, excrément de froide pituite,
En coulant de mes reins me tourmentoît si fort
Qu'on attendoit, sinon qu'une pierre trop cuite
Par des tourments cruels me rendit à la mort.
Je recourus à vous, mes saintes tutélaires,
Et je n'eus pas trois jours votre bord fréquenté,
Que buvant à longs traits de vos fontaines claires,
Je perdis mes douleurs et trouvai la santé.

Dr A. Favre published the first a book on the waters of Vals. It contains good observations, interesting and singular details. Here is an extract :

Amidst the lamentations of all the poor calculous if my voice could be heard I should say : O ye, that suffer from calculus gravel or nephretics, come to the waters ! I should exhaust my lungs, my voice, my pen and my whole soul in proclaiming throughout France such a sure, important and satisfactory truth ; and I should call upon all to come to the waters of Vals. I set down, as a positive fact, that there is not under the sun any remedy like this, for efficacy, comfort and promptness, to dissolve and comminute calculus, clear away its conducts and relieve pain. I must confess that the waters of Vals *do more in six days* than all the strange and inconvenient remedies ever could in six or twenty days to satisfy the justifiable curiosity of those who suffer from nephretic generally arising from calculus in the loins I may safely state that they will never drink in vain the waters of Vals which being most *incisive, attenuating, aperitive and dissolving*, can but procure the greatest satisfaction and restore health. If they come to the springs such patients will meet hundreds of fellow sufferers who will become the companions of their cure ; and returning to their happy homes they will bless and extol the excellence of those wonderful waters. »

Such was scientific language in 1657.

One century after, in 1785, Madier in his essay on mineral

waters wrote: "The waters of Vals work wonders in all disorder, of the stomach, the loins, by doing away with the *viscous, calculous and gravelly matter*; few patients, labouring under these disorders, have taken them without obtaining the greatest success.

We find the same affirmations among the modern writers who have studied the effect of the waters of Vals.

In their learned treatise on mineral waters MM. Pétrequin and Socquet speak of them most highly in cases of weakness of the stomach, obstructions of the liver and the spleen. They recommend them for chlorosis, the red gravel. Alibert mentions the cure of several inveterate disorders in old men. This illustrious master held the waters of Vals in the highest favour; he recommended them in cases of scorbut hemorrhagiae, chronic vomitings, intermittent fever, etc., etc. »

M. Ruelle an honorable and learned inspecteur, whom an untimely death carried off to the great loss of science, said that the waters of Vals are a medication essentially tonic and generally suit all diseases characterised by a state of weakness, langour or atony; their action creates new vigour for every function and principally for digestion circulation of the blood and absorptions. They are useful in cases of debility of the stomach, of chlorosis, of chronic phlegmasy, of obstruction in the liver, the spleen, the loins, etc, they should be prescribed in affections of the red gravel, chronic catarrh of the bladder, etc.

Dupasquier, a learned physician and a qualified chemist says: The influence that the waters of Vals have on the digestive functions, immediately on being made use of, is most remarkable, and their effects are so sudden that one may say without exaggeration that they are wonderful indeed. On the very first day they are drunk a considerable increase of appetite is the result. The patient, who for a long while did not know the sensation of hunger, is quite surprised to feel it so strong and much more so at being able to satisfy it with impunity. Under their influence the stomach seems to act

with new vigour on the food. Digestion difficult and slow before takes place with marvellous facility. »

But we shall not proceed with the quotations we might borrow from men held in high repute in hydrologic sciences. We shall only add that these testimonies come from men by no means interested in the matter.

In short the composition of the waters of Vals is most remarkable whether we consider the nature of the principles to be found in solution, or the association of all those therapeutical agents found in such relative proportions *that it would be hard to mix them better* and one would think them calculated beforehand. We have now to acquaint the reader with these proportions as they are found in the six springs of Vals.

Saint-Jean : Carbonic acid, 0,425 ; bicarbonate of soda, 1,480 ; magnesian-calcic, 0,430 ; iron and manganese, 0,006 ; chlorure of sodium, 0,060.

Rigolette : Carbonic acid, 2,095 ; bicarbonate of soda, 5,800 ; magnesian-calcic, 0,259 ; iron and manganese, 0,024 ; chlorure of sodium, 1,200.

Précieuse : Carbonic acid, 2,145 ; bicarbonate of soda, 5,940 ; magnesian calcic, 1,380 ; iron and manganese, 0,010 ; chlorure of sodium 1,080.

Désirée : Carbonic acid, 2,218 ; bicarbonate of soda, 6,040 ; magnesian-calcic, 1,471 ; iron and manganese, 0,010 ; chlorure of sodium, 1,100.

Magdeleine : Carbonic acid, 2,050 ; bicarbonate of soda, 7,280 ; magnesian-calcic 1,192 ; iron and manganese 0,029 ; chlorure of sodium, 0,160.

All those springs contain also bicarbonates of potassium and lithium, sulphates of soda and calx, silicate and silica, alumin, alkaline iodure, arsenic and organic substances. The whole in small quantities.

One glance at what is stated above is sufficient to prove that it is not an indifferent question to prescribe such or such spring ; it is evident that the expectations of the physician would be deceived were the patient to drink the waters

of the *Saint-Jean* whereas the doctor prescribed those of the *Précieuse* or the *Magdeleine*. The name of the spring should therefore be mentioned in the prescription.

Amidst those alkaline springs is to be found a strange water unrivalled in Europe ; we mean the spring *Dominique*. We here give the result of the analysis made by M. O Henri, member of the Académie de médecine, by whom were also analysed the other bicarbonated waters.

Dominique: free sulphuric acid, 1,33 ; silicate, acid, arseniate acid, phosphate acid, sulphate acid, together, 0,44 ; and also traces of sulphate of calx, chlorure of sodium and organic matter.

In presence of so surprising a chemical composition there is no wonder in our asserting that this water is not an adjuvatorium but a powerful remedy for intermittent fever. It is a febrifuge. It is a specific for all affections in which there is an irritability of the organs of breathing and circulation. It is useful in cases of disorders of the skin. This water is an agreeable drink ; ladies like the taste which is rather sweetish with an after taste of acidity.

As for the alkaline waters, they are very nice, pure or mixed with wine. From the less mineralised to that which contains $7 \frac{1}{4}$ of soda they are all highly demanded as table drink, they froth and had a pleasant pungent flavour. This of course is not a therapeutic advantage, yet it is far from being an indifferent question in a prescription to be followed some time.

DISORDERS

OF THE

DIGESTIVE ORGANS

From times immemorial there have been set down theories on the affections of the stomach, so numerous, so various in their forms, and so closely allied to every disease our poor nature is submitted to. The stomach is almost ever for one half in our diseases, it is most frequently the first cause of them. When unhealthy is it not the generator of anæmia, hydremia, chlorosis, etc., and consequently of numerous other disorders arising from the latter. The stomach the organ of life is but too often the cause of death. It is therefore no wise surprising that on such ground so many theories so many systems should meet.

Every practitioner now knows how hard it is to recognize at first, whether a disordered state in the digestive organs is due to a simply nervous disease, or to a lesion of the mucous membrane itself. It often happens that both those morbid conditions exist simultaneously and that their symptoms are confused. Very often indeed a neuralgia, which deranges the digestion, vitiates its products modifies the secretion of the gastric, biliary and pancreatic juices, occasions at length, a deterioration of the reticular body, and not unfrequently a chronic phlegmasia of the digestive mucus brings on a disorder in the nervous system.

But whatever may be the nature, simple or complex of such diseases so various in their aspect, origin and intensity, the waters of Vals are most remarkably efficacious.

We shall now examine the numerous and different disor-

ders with respect to their treatment *at home* with the Vals waters.

All physicians now agree that medicine is a science of observation, and that observation was its fundamental basis, its primitive element; that alone it can promote its improvement, that it is the only road open to the career of the practitioner. We therefore subjoin the following observations.

Dyspepsia. — M. J. D... a man of 40, of a bilioso-nervous complexion, of a stout constitution, of high morality, sedentary, laborious and even toilsome habits, *since six years was labouring under pains in the stomach*, characterised chiefly by increasing aversion for all kinds of food whether liquid or solid. After his meals, this patient felt in the epigastric region a sensation of heaviness and oppression with risings from the stomach of gases and sometimes aqueous acids which inconvenienced him greatly. He also felt, when the meal had been rather more copious than usual, regurgitations without nausea or vomiting which brought the food in an imperfect state of digestion.

A singular fact worth noting M. J. D... never felt any acute pain or cramp or sensation of burn in the stomach.

The patient is low spirited and has lost all aptitude for work and is inclined to sleep but a few minutes after eating. Muscular strength annihilated scarcely has he enough for a short walk.

Such was his state when after using and abusing every thing he applied for the waters of Vals.

After referring to the above notes I advised him to take the water of Saint-Jean.

About two months after I received the following letter.

Dear Sir,

The use of the waters you were so obliging as to send me has been satisfactory. My appetite is improving and my digestion better, not so long nor so laborious. I seldom have risings of the stomach or regurgitations. This improvement leads me to hope for a complete and early cure, etc., etc.

I advised M. J. D... to continue the water of Saint-Jean a few days more and then for two or three weeks to drink the water of the Précieuse to ensure his cure. I since have heard with satisfaction but without surprise that my previsions have been realized.

ANOTHER CASE.

Dyspepsia. — M^{me} J. P..., of 24, of a nervous and weak constitution, an excitable temper was suffering since three years from great difficulty to digest with a continual aversion to food; no appetite, and if getting the better of her aversion to food she ventured to take a cup of broth, mild etc she suffered immediately from flatulency and niderous eructations. The mouth clammy and bitter, the tongue foul and thick. The patient felt even on pressure, no painful sensation on any part of the abdominal capacity. Constipation continual and only to be relieved by the use of several clyster injections to which the patient was obliged to submit every day and often even without success. The throbbings of the heart and commotion of the larger arteries were normal; strength greatly broken down; manual and intellectual work fatiguing and often impossible; sleep bad, uneasy often interrupted.

After perusing the letter in which madame J. P... explained her disease I had no hesitation in ascribing all the disorders of digestion and nutrition this lady laboured under to an anorexical dyspepsia which I advised her to combat by drinking for a long while the waters of Vals, spring Saint-Jean.

Two months after I received from her the following letter.

Dear Sir,

Thanks to the Saint-Jean water which I have taken as you prescribed I feel much better. I have no longer that aversion to food; my appetite though not sharp nor even good has however improved; my digestion is pretty fair and no longer disturbed as formerly I am stronger and in better spirits. In short I am cured or very nearly so.

I hope, Doctor, to have the pleasure of thanking you in person when I go next season, were it but through gratitude, to see the springs that have restored me to health.

Madame J. P. never came to Vals; at the time of the watering season she was radically cured.

OBSERVATIONS.

In cases of anorexical dyspepsia it is better, according to the opinion of all doctors, to prescribe such waters as are less mineralised when somewhat ferruginous; they should be taken in weak doses at first increasing gradually every day.

What makes the water Saint-Jean almost special for anorexical dyspepsia and preferable to the waters of Bussang d'Orezza or Soultzmatt, is that not only it is gaseous, but also contains, in most admirable proportions, that precious tonic, iron and bicarbonate of soda mixed with calx and magnesia. Now all doctors agree that the association of these therapeutical agents gives rise to a *direct* and very powerful action on the real phenomena of digestion, and particularly on the gastric and duodenal secretions.

The causes that bring on dyspepsia are almost always the non observance of the most simple and most common laws of hygienæ. Coarse, bad, insufficient food, abuse of infusions and hot drinks, want of exercise and pure air, cramped positions at a long and toilsome work, excessive moral preoccupations, violent grief, long arduous intellectual labour, deep ascetic meditations, etc.; the want of mastication or insalivation, whether arising from eating too greedily or from the absence of the teeth, is one of the most general causes of dyspepsia. It is easy to be understood: the food coming into the stomach but imperfectly triturated and insufficiently impregnated with the salivary juice, the functions of this organ become of course more painful, slow and laborious.

Long disorders of the digestive tube by vitiating, increasing immoderately, or by suppressing the secretion of the gastric, biliary, pancreatic juices, by reducing the mucous membranes to a state of weakness and atony may bring on anorexical dyspepsia.

DYSPEPSIAE AND GASTRALGIES

CURED

BY THE VALS WATERS.

Madame E... of middling size, weak constitution, lymphatico sanguine, suffered all those illnesses which are common to childhood. She had the small-pox, the scarlet fever, one or two mneous fevers, suffered severely by the worms ; she had glands about the neck and under the arm pits ; she could only take light food and had never consented to take any physie. An only daughter and consequently quite spoilt by her parents, large land proprietors, her childhood passed away in a very precarious state of health. The critical age of puberty was calm but brought with it none of those attributes so abundant in well constituted young girls : M^{me} E... had her menses, and yet she was sickly, her breasts scarcely formed, her limbs slender ; she felt none of those undifined and pleasing sensations that charm young girls into a state of reverie. At eighteen, said M^{me} E..., I was a regular abortion.

It was but in her 24th year that our patient found her constitution and strength improving, and that because since six months she had been eating more substantial food and drank wine pure.

Married at 25 to a gentlman of her age, possessing all the qualities necessary to be a good husband, she was happy for the fifteen yars that this union lasted. During that time she had two children that lived but a few days. Her husband became consuptive and died after six months suffering. It was at this time, and in consequence of great fatigue and grief, that M^{me} E... perceived that her digestion was getting difficult, laborious. She continually felt squeamish and often vomited without effort, a clear slimy mneus which she compared to the white of an egg, but very sour. It was generally in the morning before breakfast that the vomiting took place, and such was not the case the patient could take no food. Whereas after vomiting she ate more but digestion was longer more toilsome and painful.

Instead of combating secretory irritation, or to speak more technically this hyperdiacrasia of the digestive mneus, by proper means and proper diet, the patient took but spicy food and ardent spirits though taken with moderation.

Far from diminishing, the hyperdiacrasia increased so that at last she was

obliged to consult a doctor, who during 3 months submitted his patient to a regimen more calculated to impede the progress of the disorder than to cure it.

I prescribed three glasses of water from the *Précieuse* at half an hour's interval. The patient to take four other glasses in the day *at her meals*.

At the end of 25 days of this treatment, the menses, which had disappeared since six months, came on very well. The cure began well and continued so without any relapse.

GASTRALGY.

M. M. D... age 25 weak lymphatic constitution, suffered, since his 19th year, pains in the stomach, had vomitings every eight or ten days. Since one year after each meal he felt a heaviness and pains in the epigastric region, and often vomited his food half digested. Every morning he threw up a great deal of gastric juice extremely acid. His complexion was sallow, the skin palish; no appetite; continual constipation that no remedy could relieve.

After ascertaining that the vomitings were not produced by any organic lesion of the stomach, nor by any disorder in the brain, I prescribed progressive doses of our alkaline waters of the *Précieuse* or the *Magdeleine*. By the influence of this simple treatment the vomitings ceased so early as the tenth day; on the twentieth the patient digested well, enjoyed sound and invigorating sleep, had recovered his ordinary complexion, and on the thirtieth his cure was the object of no doubt.

OBSERVATIONS.

One must have had some years practice of the curing powers of mineral waters to add implicate faith to the wonderful results in some cases.

Not one of my honorable and learned brethren of Carlsbad, Ems, Luxeuil, Saint-Alban, will question the truth of this remark, which, I am sure, will cause a smile on incredulity to mantle on the face of some practitioners. If among them there should happen to be any who have patients suffering from acid dyspepsia, let them prescribe the waters of Vals, from the springs *Précieuse*, *Désirée* or *Magdeleine*.

I warrant their incredulity will not outstand a month.

Sydenham said : That remedy which will the best carry the point of strengthening the digestive organs will , be the best for chronic diseases, and with such a remedy one may attain unexpected results.

In my opinion, and I say so with the sincerity of my soul, the remedy to which one of the greatest physicians of England prophesied unexpected results, can be found in the proper use of the Vals waters. What makes these waters so curative in cases of chronic gastro-intestinal disorders, is that, besides the exciting action to be found in carbonic acid, and the precious tonics afforded by iron and manganese, they contain bicarbonate of soda, which, according to all doctors, exercises a direct and very powerful action on the minutest phenomena of digestion, and particularly on the gastric, pancreatic and biliary secretions.

I may safely assert that almost all the chronic disorders of the digestive tube, tributary to the use of our waters, afford symptoms more or less characterised of globular anæmy, such as : decoloration of the skin, full but slow pulse, arterial noises, numerous and varied neuropathies, etc. Hence it is that I have constantly observed that such patients whose digestive functions have been weakened since a long time, whose stomach want the stimulus necessary for the regular accomplishment of nutrition and assimilation, are satisfied with our waters. And indeed the patients who use the waters of Vals from the very first day of their hydro-mineral treatment feel a great improvement in the digestive functions, and this improvement brings on a lively relish for food and an energy in the act of chemification and chylicification. Food which till then had not been digestible become so most easily ; and this first effect of our waters is eminently favorable to the moral side of the disorder, as also far its cure.

CLINICAL STUDIES ON THE UTERUS.

THE MENSES.

During the whole time that the matrix remains in that state of *numbness*, *torpor*, or as it were of *sleep*, which has been compared to that of a chrysalis, that organ, devoted by Nature to the grand and sublime function of maternity, is subject to few or even no disorders. But when the chrysalis, to become a butterfly, wants to tear open the envelope that separates it from a new existence, it occasions, after some vague, unknown and sometimes painful phenomena, a lively exaltation of the whole genital system which causes a flowing of blood varying in duration, periodicity, quantity and quality. Then begins for the pubescent girl that long chain of pleasure and pain which in its numerous links encloses the better part of the life of the woman. It is at this period too that the young girl, becoming more bashful, more reserved, feels within herself something that agitates her and makes her uneasy. It is the generative sense which, silent till then, begins its functions. Then the undefined ideas of the young maiden assume a new form, and instinctively she finds herself initiated to the secret of her new existence. Then is felt that wish to love and be loved. At that age many are the wrecks of virtue. And indeed, in the hard struggle between desire and chastity the latter would not always be victorious, were not a good solid education and maternal solicitude and foresight to come to its assistance.

With strong, sturdy pubescent generally enjoying good health, and particularly with the buxom country girl, leading

a sober, active, hard working life, the monthly terms are but a slight accident. Such is not the case unfortunately with the young, tiny, weak, delicate girl of sedentary, idle habits, nor with that one who fatally is submitted to that kind of constitution of which lymphatism is the most ordinary manifestation. For most of these poor creatures the menses, if they do take place, are irregular or insufficient. In such cases the waters of *Saint-Jean*, *Rigolette*, *Dominique* are of great advantage, by improving the appetite and the powers of nutrition and assimilation, the consequences being that by restoring the normal state of the blood, it becomes, more excitable and awaking from their torpor the generative organs, occasions that fluxious condition which must bring into action one of the most important functions of the life of women.

CASE OBSERVED.

M^{lle} G. D..., age 16, of a delicate lymphatic constitution, had up to the age of 15 but such sicknesses as are the lot of childhood. Since one year this interesting patient was afflicted with continual undefinable pains all over the body, numbness in the limbs, heaviness in the loins and at intervals headache, præcordial uneasiness, yawning, and pendiculations; *she was always ailing; her imagination wandering about; not knowing what was the matter with her; wanting what she could not get and refusing what she could have.*

Condition of the patient. -- M^{lle} G. D... is tall and slight; thin features, languid eyes, palish white skin, indolent way of walking; every thing denoted a decided case of chloro-anæmie. The tongue pale, large and clammy; slow digestion; continual constipation; no appetite; always chilly, low spirited, fantastical, exacting; were she allowed she would never get out of bed.

After ascertaining that the thoracic organs were not affected I prescribed the waters of the *Rigolette* and the *Dominique* in little doses. Under the action of the waters of those two springs the patient felt her appetite getting better after 15 days. About the 20th she recovered her strength, digestion improved; all former symptoms began to fade away; the monthly flowing took place without any accident worth mentioning, and after a treatment of one month she left us with every appearance of health.

OBSERVATIONS.

To me it quite evident that with those affected with chlorosis, anemy, or not as yet menstruated, *the principal and first thing to be done is to make the patients take food and digest it.* The digestive organs must therefore be the very first object of the attention and care of the physician. With all those affected, with anemy and chlorosis that I have treated the waters of *Rigolette* at first afterwards those of *Dominique* have generally restored health before bringing on the monthly term.

Considérations on the affections of the uterus and their cure by mineral waters.

All the functions of the female are as it were under the dependency of that organ through which woman is what she is. *Mulier est quod est propter uterum.* Most of the nervous disorders which females are subject to disappear but on their being cured of the diseases of the uterus. The morbid state of this organ is manifested by pains felt in the loins, hypogastrium, groin, hypochondre, etc.

The most ordinary cause, and the one which brings on almost all the organic lesions of the uterus, is the sanguine congestion, which, itself, arises from several causes. But let us enter into some details on an affection so well worth being considered.

Since the celebrated professor Recamier there has been a return to real medical ideas as to the disorders of the uterine organs. A great many physicians, most of them in fact, considered them as quite local, without any connexion with the general state of health, and consequently prescribed but local

remedies which almost always failed. Recamier in his lectures asserted that the uterine affections, instead of being isolated diseases, almost always arose from some disorder in the nervous system or from nutrition; that most of the females subject to them are of a weak or sickly constitution, very excitable and nervous; that with and even before any other phenomenon they felt a derangement in the digestive organs, such as loss of appetite, slow and laborious digestions, long constipation, etc., etc.; that with many there might be observed symptoms of chloro-anæmy; in such a state of suffering he discovered the cause which produces and maintains the uterine catarrh, loss of whites, the granulations in the neck of the matrix. Recamier therefore proposed to improve the constitution without leaving off the local treatment.

When instead of examining but the lesion, we endeavour to come to the causes, we find in most females anæmy and chlorosis, the result of insufficient food, fatigue, grief, want of exercise of air and light. There are even material causes which may take their place in this category; such, for instance, as the accumulation excrements in the larger intestines.

To attack the sickly state of the generative organs, without minding the general state of health, is therefore neglecting the first cause and exposing the patient to a relapse. Whether the cause of the primitive disorder be known or not the use of the Vals waters, from the springs *Rigoletteet Dominique*, will prove equally favorable to the cure of the local and general state.

It may be useful to give here a clinical case in which the state of the patient, and the improvement obtained by this treatment have, in our opinion, real importance.

M^{me} B..., age 50, short, of a delicate constitution, had begun her monthly terms at 15; was married at 19 and became a mother at 20: she had constantly enjoyed pretty good health, but at 45 the red flux was replaced by white rather frequent.

At 50 a flux at first whitish, yellowish, then blood-like took place and was combated by all the ordinary means used in such pathologic cases.

General state. — Weakened constitution, a decided chloro-anæmy; gastralgic accidents, frequent neuropathic, stubborn constipation, very great

weakness in the muscles, pains in the loins and hypogastrium; continual cruralis but slight; irascible, capricious, fantastic temper, etc.

Local state. — Outer genitals not very sensitive almost cold, easily dilated; on feeling the vagina, the neck is found to be inclined to the left and the seat of a regular obstruction; it is soft, spongy, indolent; the vagina seems covered with ropy mucosities of a yellowish hue; the neck half open, slightly swollen, let out a fibro-plastic exsudation, yellowish, thick and sticky.

The chloro-anemy is manifested by a general discoloration of the skin and the mucus, the swelling of the face and lower extremities, by a pulling noise in the large vessels and in particular the carotides, by the slowness and difficulty of motion; the dyspeptic state is shown by slow difficult digestion and incurable constipation.

I prescribe the *Rigolette* waters at her meals and two half glassful in the morning and four in the evening; and several times a day local injections with the same water.

Under the influence of this treatment exactly followed for two week'time a great improvement might be seen in the general state of health. The skin and mucus had assumed a light rosy hue; the pulsations of the carotides were less noisy; the dyspeptic neuropathic accidents had diminished.

The local state, with the exception of a diminution of the vaginal and uterine secretions, was the same and the other symptoms were as before described.

We continued the same treatment, but we prescribed the *Dominique* waters in the same proportion.

Under the influence of these ferro-manganic waters, taken during another fortnight, all or nearly all the chloro-anemic, dyspeptic, gastralgic and neuropathic accidents abated so far as to give hopes of a complete recovery.

The vaginal and uterine secretions were stopped; but the neck of the womb was still a little open and the body of the uterus, still inclined on the left side was soft and flabby; here the improvement was slight but it was great in the manifestations which the swelling of the womb gave rise to, i mean the pains in the loins, in the hypogastrium and the crurals.

The slight improvement in the state of the uterine swelling gave me no anxiety, I knew by experience that it was but after a month or six weeks that the organ would be restored to its normal state. Towards the end of the following month of september, M^{me} B..., called to see me, and declared herself cured.

CLINICAL STUDIES

ON

THE GOUT AND THE GRAVEL.

Erasmus writing to one of his friends said humourously and rightly: I have the gravel you the gout, we have married the two sisters. We shall only add that the two sisters are often *twins*.

The gravel and the gout says the learned doctor Leroy d'Etiolles, are *the same thing*. We may say that the gravel and gout go together; on a hundred persons affected with the gout, M. Royer found ninety nine affected with the gravel, or whose urine deposited sediments formed with uric acid; the gout was therefore considered by some authors as a frequent chief cause of gravel.

M. Royer assimilates the two disorders and considers them as two manifestations of the same morbid state.

All such authors as have written on the gout have observed that an almost constant sign with those affected with the gout is that the urine gets muddy and deposits a brick colored sediment very abundant and which is nothing else but uric acid; hence that *concomitance* so frequent of the gout and red gravel. » (*Constantin James.*)

CASE.

M. Guichard, age 65, a tall man, of a nervoso-sanguine nature, a good strong constitution, of a frank generous open temper, very fond of gastronomic

pleasures, born of strong and healthy parents, had never felt any regular illness, when, in 1832, he felt the first attack of an acute articular rheumatism, which could not be relieved by the application of 300 leeches. The patient was then sergeant major in a regiment of *carabiniers* in garrison at Strashourg. The rheumatism, which lasted four months, was brought down but by the use of fumigation baths; and left in the mind of the patient the remembrance of the most agonizing, pains, in the articulations, and even since his existence was but one of pains.

M. Guichard, on leaving the army married and kept a coffee-house, then became a land-agent. It was in 1842, that the first attack of the gout came on. Suddenly, without any prodromic symptoms it took possession of the left big toe; it was sharp but exceedingly painful. The second attack, which occurred three months after the first, was longer and just as painful as the former. On the third fit the right toe was taken too. From that moment the fits became more and more frequent, longer and more painful. The patient observed that after each fit of the gout it left, in the articulations that suffered, tophacy deposits hard and chalky which rendered the movements stiff and difficult, so much so that in 1846, locomotion was impossible without the use of crutches, the articulations in the knees and feet having been quite deformed.

At this time took place the first attack of uric gravel this attack which was extremely violent coincided with a most acute fit of the gout. We shall not describe here the symptoms which brought on nephretic colics for the elimination and expulsion of three or four calculus, about the size of a pea, always rugged and often angular, they were in fact agonizing.

From 1846 to 1855, that is during nine years, M. Guichard was eight or nine months in his bed or keeping his room, labouring under exquisite pain, and scarcely able to set his feet on the floor, so much had they been deformed by the gout or its consequences.

State of the patient. Notwithstanding the sufferings occasioned by the frequent and simultaneous fits of the gout and gravel, M. Guichard has a florid complexion and a certain corpulence due probably to the good and succulent food of the hotel; the walks with the greatest difficulty, painfully setting the outward side of his feet on the ground. He walks very slowly and could not do so at all while he not to support himself on crutches, which, his hands, almost as much deformed as his feet can scarcely move.

All the articulations of the toes have on them nodorities, or tophacy tumours more or less considerable, they are cedematiated. The articulation in the knee is quite deformed and can by no means bear the weight of the body, and distorts outwardly in the most surprising manner. The articulations in the fingers are exactly in the same state as those of the toes.

M. Guichard handed us a little case full of uric acid gravel, the size of which varied from the head of a pin to a little bean. Almost all the gravel was rugged, or covered with little asperities.

We prescribed the alkaline waters of Vals, and as usual we advised him to

make them his ordinary drink. I let him know that food too rich, too much meat, and exhilarating drinks were very bad for him, particularly during his treatment. I also advised him to take as much exercise as possible.

Under the influence of this treatment, regular diet and great bodily exercise, M. Guichard, after two months, felt some improvement; he had had but one fit of the gout and gravel, and this had been shorter and less painful.

The patient, understanding all the advantage to be derived from the use of our waters and a regular diet, continued to drink the mineral waters and adopted such food as he was used to when a boy, such vegetable soups, potatoes, chertnuts, milk, new cheese, and eggs.

Since nine years that M. Guichard has followed this regimen and has drunk our alkaline waters, he has had but *one access of the gout and not one of gravel.*

The nodosities, or tophacy tumours have disappeared, the stiffness of the muscles and tendons has given way, all the alterations caused by the gout have improved; in short M. Guichard can now enjoy his favorite amusement, angling, and even make nets, which requires a certain dexterity in the fingers.

OBSERVATIONS.

To remove the fits, make them less violent, diminish the swelling and the tension of the articulations, make them more flexible, prevent the formation of new concretions, and in every case soothe the dreadful torture, such are the results obtained, such is, in the present state of science, the property, not exactly curative but decidedly palliative of the Vals waters; specially of those from the springs *Précieuse* and *Magdeleine*, in the treatment of a disorder which, with time, constitutes one of the most cruel infirmities man may be afflicted with.

No more can be required. But what is most obvious in this case, and what must have struck the minds of our learned fellow-physicians is this fact. Since ten years, M. Guichard usually drinks and in large quantity one of the most mineralized waters of Vals (la *Précieuse* and la *Magdeleine* contain a quarter of an ounce of soda) without its provoking the slightest inconvenience.

The ferruginous springs which are most useful in medicine are, as the reader knows, those of a cool temperature contain-

ning an excess of carbonic acid. For waters that are to be forwarded to distant places, these two conditions are indispensable. We may here observe that the waters of Vals are 58° Fahrenheit and contain twice their volume of carbonic acid; the two springs at Vichy, *Grande-Grille* and *l'Hôpital* are at 86° and 105 and contain but half their volume of carbonic acid. It would be useless to insist on such an essential difference.

In the waters of Vals the richness of the tonic substances (iron manganese, calx) prevents the formation of the alkaline diathesis occasioned by a long use of the Vichy waters, which use professor Trousseau contended as energetically as wisely. Indeed during a lecture, which has remained celebrated, the eminent clinician of the Hôtel-Dieu, stated that in a great many cases, not only alkaline diathesis stops the cure of many of the patients who repair to Vichy but even aggravates their case with a new disorder which sometimes leaves the physician in presence of a dreadful complication. (*Gazette des Hôpitaux*, 7 mars 1865.)

In concluding this slight essay, we may add that the waters of Vals, *St-Jean*, *Désirée*, *Précieuse*, *Rigolette*, *Magdeleine* and *Dominique*, are a most agreeable drink whether pure or mixed with wine. This consideration is worth noticing, when, most generally, the medication must be followed several weeks.

These waters, are put in black glass bottles with a tin capsulo bearing the name of the spring they are taken from, and may be kept any length of time without losing any of their virtues.

D^r TOURETTE.

Translated by professor C. S. MERRITT.

Each bottle bears a label, of which the following is a model :—

The Name of the Spring is on the Copper cap.

SPRINGS

—
PRÉCIEUSE
ST-JEAN
DÉSIRÉE

NATURAL MINERAL WATERS

OF

VALS

AUTHORISED BY THE STATE.

SPRINGS

—
MAGDELEINE
RIGOLETTE
DOMINIQUE

The Waters of Vals are agreeable to the taste; they are drunk pure, or mixed with the ordinary drink, if taken at meal hours.

Good for the stomach, they are sovereign in cases of debility of that organ; they act energetically on the digestive functions, prevent greatly general atony, and relieve exhausted vigour. Weak and fatigued stomachs must make of these waters their ordinary drink.

The Waters of Vals are the richest mineral waters known in France; they are particularly efficacious in obstructions of the liver and the spleen, affections of the loins, pale colours, etc., etc.

Veritable digestive Pills of Vals, made with the Salts extracted from the Springs.

